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A CHAPTER ON LIZARDS.

Those who have read or heard anything of geology, and the extinct tribes of creatures which once peopled the globe, but are now only to be found embedded in a fragmentary and fossil state in the strata which form the crust of the earth, must be perfectly familiar with the name of the Saurian tribe. It is an extensive group, belonging to the order of reptiles, and comprising eight families now existing, among which the crocodile and the chameleon may be mentioned. Another of these eight families is that of the *Lacertæ* or lizards, a few specimens of which are represented in the accompanying engraving. They are found sometimes as far north as Sweden and Denmark, but more commonly in the central and southern parts of Europe.

We will suppose the reader walking on a fine summer's day along the outskirts of a wood in these more frequented regions. All of a sudden he hears a slight rustling among the dry leaves which the wind has blown together under a bush. He starts with alarm at the unexpected sound, lest a deadly viper should attack him with its venomous fang. But he need be under no apprehension. The little creature which has frightened him is as harmless as it is lively and brilliant. It is a green lizard, or, in the language of naturalists, *lacerta viridis*. It appears at the foot of our illustration with its soft and forked tongue, which is quite incapable of doing any mischief. But if lizards do not sting, they make up for this inability in some measure by the tenacity of their bite. When once they have got firm hold of their enemy, it is no easy matter to make them let go—in fact, the only way in which he can generally release himself from their grasp is to kill them. We are assured by a naturalist that he has carried one hanging on at the end of his finger for nearly a mile. Although the animal's bite is not at all dangerous, and its little teeth are too short to penetrate through the skin, it is better not to try any such experiment with a large one, because the force with which it bites causes considerable pain. Beyond this inconvenience, however, there is nothing to be feared, for none of this species are at all poisonous.

There are about sixteen known species belonging to this family. As they vary a good deal in colour and size, naturalists have been obliged, in order to distinguish the different species, to study every part of the body very minutely, even down to the scaly plates on the head, to each of which a technical name has been given. Even with all this minuteness of observation, it is not easy to draw any marked and certain line of distinction between the various species; for what have been thought specific characters by some naturalists, have been found by others to be present in one individual and absent in another of the same species. Be this as it may, the green lizard is generally from ten to twelve inches long; sometimes, in the south of France and on the coasts of Barbary, it attains nearly to the length of eighteen inches. The temples are covered with polygonal scales of unequal sides, the central scale being larger than the rest. The occipital plate is small; those of the belly form eight rows, two of which are shorter than the others. There are from twelve to twenty femoral pores along the interior of the thigh. What purpose these pores are intended to serve is at present altogether unknown. The jaws and even the palate are furnished with very small teeth. The belly is yellow; but the back, as well as all the upper part, varies a good deal in colour. It is generally green throughout, or marked with yellowish spots. Sometimes it is brown spotted with green; at others, brownish spotted with green or white, and streaked with black; or, lastly, it is brownish, with from two to five longitudinal white stripes bordered with black.

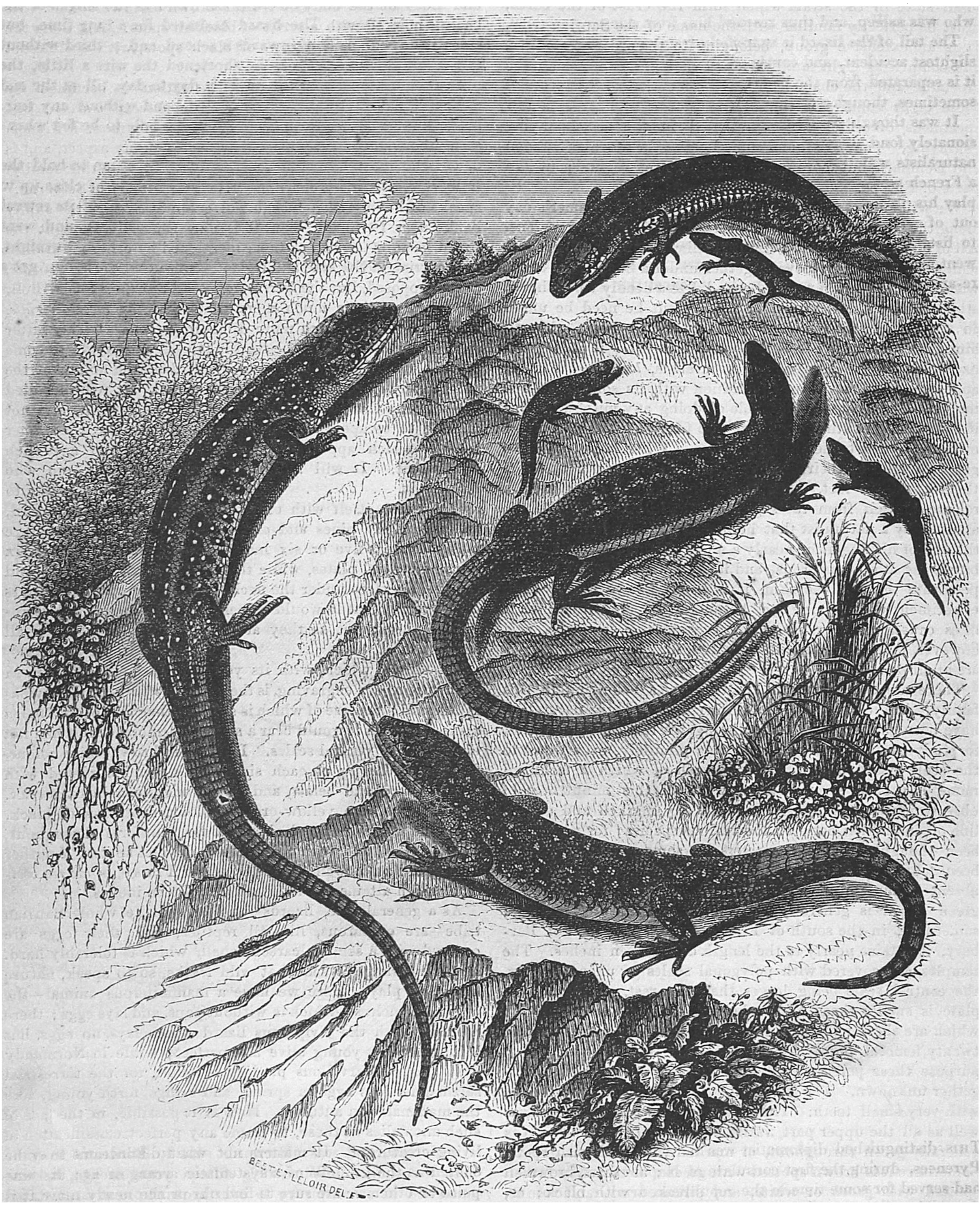
The lizard which in our engraving seems to be threatened by the one of which we have been speaking, is the species known under the name of *lacerta stirpium*, or the trunk lizard. It is generally half as large again as the green lizard, which it closely resembles in other respects. But its belly is white, sometimes spotted with black. In the male the back is of a uniform brown or red brick colour; or with black spots, with or without white streaks or spots. The sides of the body are green, spotted with brown. The female has the upper part and sides of the body of a clear brown or fawn colour. Its back is marked with a series of blackish spots. All along the sides it has one or two rows of black spots, with a white dot in the middle of each spot.

The highest position in our illustration is occupied by a lizard, called by some naturalists *lacerta muralis*, but better known as *lacerta agilis*. It is very common, in France, along the walls of gardens which have a sunny aspect, and is one of the most beautiful and lively species of this family. Gilbert White, in his charming "Natural History of Selborne," speaks of having seen "beautiful green *lacertæ* on the sunny banks near Farnham;" but it is now generally thought the lizard he saw—as well as those mentioned by other naturalists as occurring in England and Ireland—was not the *lacerta viridis*, as he supposed, but the *lacerta agilis*. According to Mr. Bell, the *lacerta agilis* is much more timid than the *lacerta viridis*, and consequently much more difficult to tame. "This latter species," he says, "may be readily tamed, and taught to come to the hand for its food, and to drink from the hollow of the palm of any one to whom it is accustomed. It will lie coiled up between the two hands, enjoying the warmth, and not offering to escape. But it is very different with the former species, which appears not to be susceptible of any such attachment. It will indeed attempt to bite any one who handles it. . . . . When in confinement it ceases to feed, conceals itself with extreme timidity when approached, and ultimately pines and dies." This lively little creature rarely exceeds five or six inches in length. It has only six rows of ventral plates, while the green lizard has eight; and the half necklace under the neck is not indented. Its colours are so varied that it would be very difficult to give a description of them; but as they are well known, it is not at all necessary.

The animal which, with its young on each side, appears in the centre of our engraving, is the *lacerta vivipara*, or the viviparous lizard; the size of which is still less than that of the *lacerta agilis*, to which it would bear a strong resemblance if it had not eight rows of ventral scales. Its back is brown, olive colour, or reddish, having on each side a black band bordered with white, above and below, and in the middle a black streak. The belly is of a yellow-orange colour, spotted with black. The female is brown-red above, almost uniform throughout, without lines, and with only a few indistinct spots. Another species of lizard, found in the South of France, is *lacerta ocellata*, which attains to the length of eighteen inches.

As a general rule, lizards—and indeed the whole Saurian tribe—are oviparous, like all reptiles, and their eggs are covered with a semi-calcareous shell, which is tolerably hard. But it is strange to see what wild freaks, so to speak, nature seems to play. Here we have a mammiferous animal—the ornithorhynchus—which is without paps, and lays eggs; there we meet with the viviparous lizard which lays no eggs, but brings forth its young alive and perfect; while in Normandy a still more marvellous prodigy is found, for the terrestrial salamander lays eggs in spring, and brings forth young, like the mammalia, in autumn. How is it possible, in the face of such anomalies as these, to frame any perfect classification of living creatures? It matters not what distinctions may be chosen as the grounds of a systematic arrangement; at some point or other we are sure to find our principle at fault. It is said that lizards, which are so lively and active in summer, are torpid in winter from the effects of the cold; yet towards tropical climes, animals of this same tribe—crocodiles among others—also become torpid from the very contrary cause, namely, heat; for it is in summer only that this torpidity takes place. The facts are unquestionable, but the explanation is not easy to give.

Lizards are thought to have very obtuse senses. This is pretty certain so far as regards taste and smell; but their hearing is very acute, and their sight very penetrating. Like all animals covered with scales, they have no delicate sense of touch; on the contrary, they are almost devoid of all susceptibility in this respect. It appears that the epidermis which covers them has a fatty substance for its base, for it is impervious to injury from acids, or at least nitric acid, such as engravers use. We are informed, by a careful observer, that he once put a green lizard into a jug filled with this acid, and let it remain there for an hour and a half, yet, when he took it out, it began to run about the table as if it had suffered not the slightest inconvenience.



THE TRUNK LIZARD (*Lacerta spiopium*). THE WALL LIZARD. (*Lacerta muralis*). THE VIVIPAROUS LIZARD (*Lacerta vivipara*). THE GREEN LIZARD (*Lacerta viridis*).

These animals feed exclusively on living prey, consisting of flies and other small insects, caterpillars, and particularly earth-worms. They have the power of remaining a long time without food, the length of the period being dependent upon the temperature. They live in old stumps, holes which they make in the ground, crevices in rocks, or holes in walls, always in a part most exposed to the sun. They have in general not much sagacity; and yet they soon learn enough in captivity to come when called, and take the food in one's hand. The ancients thought them friends to man, whom, it was supposed, they would wake up when they saw a serpent approaching him in his sleep. The origin of this notion appears to be, that on seeing an adder or serpent a lizard would naturally take to flight for fear of being devoured, and that in so doing one of this tribe may have disturbed a man who was asleep, and thus rescued him from danger.

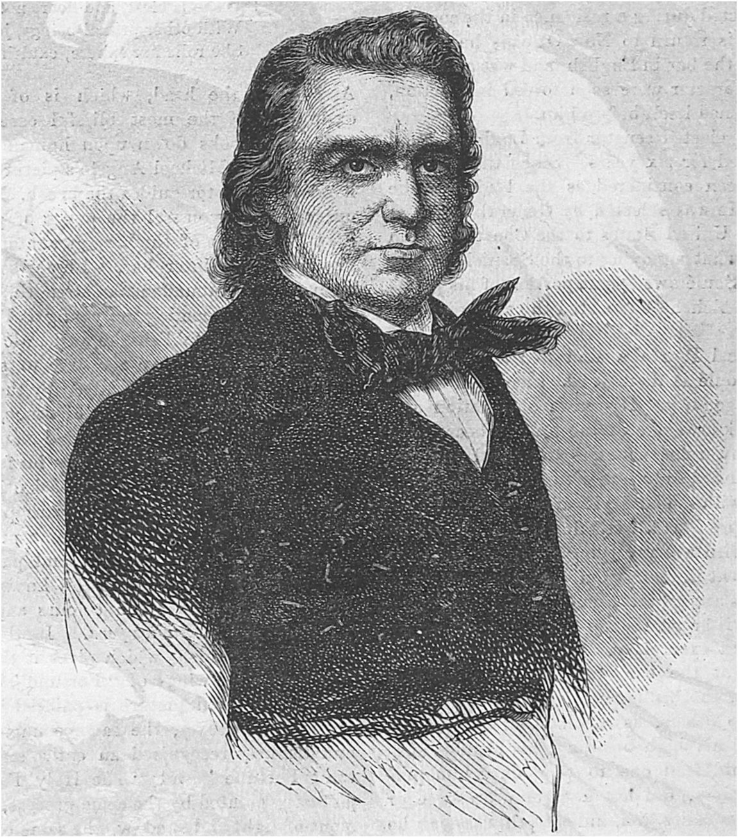
The tail of the lizard is extremely fragile. It breaks on the slightest accident, and continues to move for a long time after it is separated from the body. The animal gets another, and sometimes, though rarely, a third and a fourth.

It was thought by the ancients that these reptiles were passionately fond of music, and facts are mentioned by modern naturalists which seem strongly to favour the notion. Thus, a French writer of this class states that as soon as he began to play his flute, a large green lizard used to put half its body out of a hole in the rock opposite his window, and seemed to listen with great attention. When he left off playing, it went back into its hole; if he began again, it immediately re-appeared; and he could make it repeat this as often as he chose. He does not pretend to decide whether it was simply curiosity which prompted the animal to act thus, or whether it mistook the sound of the flute for the buzzing of some insect upon which it hoped to prey.

The same writer tells us that one day he took a long wire—a piano-forte string, in fact—and fastened a fly to the end of it. He then brought the fly as near the lizard as the length of the wire would allow. The lizard hesitated for a long time, but at last took it, and afterwards a second and a third without any hesitation. Next day he shortened the wire a little, the day after as much, and so on from day to day, till at the end of eight days it took food from his hand without any fear. He also accustomed it to come out of its hole to be fed whenever he whistled as a signal.

Proceeding in this course of training, he began to hold the prey six inches from the lizard's mouth, instead of close up to it, so that it was obliged to come completely out of its retreat to get it. The next day he doubled the distance, and went on increasing it every day, till, at the end of a fortnight, the animal would follow him all round the garden to get a worm.

M. PIERRE SOULÉ.



This distinguished diplomatist was born at Castillon, in the Pyrenees, during the first consulate of Napoleon. His father had served for some time in the republican army, and rose to the rank of lieutenant-general. On retiring to his native mountains, he became an administrator of justice, and rendered valuable services to the community in which he lived. Finding his son Pierre to be an intelligent and promising lad, he determined to devote him to the service of the Church, and in 1816 sent him to the College of the Jesuits, at Toulouse. Here he soon distinguished himself; but, as the strict discipline of the order did not agree with his notions of freedom, he withdrew, and was afterwards sent to Bordeaux to complete his studies. When only fifteen years of age, he was concerned in a conspiracy to overthrow the newly reinstated Bourbons, and being detected, he sought safety in flight. For more than a year he was concealed in the little village of Navarre, where he followed the quiet occupation of a shepherd. He was then permitted to return to Bordeaux, where he greatly distinguished himself as a professor in one of the principal institutions of the city. This quiet position, however, did not long suit his active spirit, and he removed to Paris, where, at the same time that he devoted himself to the